DOCUMENT RESUME

ED 260 375 CS 008 110

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TITLE Motivational Processes in Reading: Unlocking the Ghost in the Machine.
PUB DATE 5 May 85
NOTE 24p.; Paper presented at the Annual Meeting of the International Reading Association (30th, New Orleans, LA, May 5-9, 1985).
PUB TYPE Viewpoints (120) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Elementary Secondary Education; Goal Orientation; Incentives; *Motivation Techniques; Reading Improvement; *Reading Instruction; Reading Skills; *Student Behavior; *Student Motivation; *Teacher Behavior

ABSTRACT

Containing five sections, this paper deals with motivational processes in reading. The paper first discusses motivation and unmotivated behavior. It then examines contributions from psychology, which include views concerning the nature of variables and processes involved in motivation and behavior; a hypothetical motivational sequence; and "unlocking the ghost in the machine," or bringing out internal motivating influences, such as insight, intellectual awareness, task knowledge, and self-evaluative abilities. The paper concludes that since successful learning comes from proactive behavior, teachers could help students by acquiring new concepts and skills that positively affect student motivation. (EL)

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MOTIVATIONAL PROCESSES IN READING: UNLOCKING THE GHOST IN THE MACHINE

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"It is one thing not to see the forest for the trees, but then to go and to deny the reality of the forest is a more serious matter; for it is not just a case of myopia, but one of self-inflicted blindness."

--Paul A. Weiss

I. MOTIVATION AND MOTIVATED BEHAVIOR

A. Educators are preoccupied with their responsibility for developing the basic skills of pupils but are not aware that this includes altering habits and styles as well. To accomplish this both instructional and psychological sophistication is required.

B. Inadequate attention to motivational factors can seriously interfere with effective instruction. The two areas are interdependent and interconnected with important mutually controlling relations. "Myopia" is correctable, "self-inflicted blindness" is a good deal more serious.

C. Motivation is a psychological construct used to explain why pupils do what they do. The concept is used to refer to either a present condition, hence an influence or "cause" of behavior (i.e. Billy is

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Presented at the Thirtieth Annual International Reading Association Conference, New Orleans, Louisiana, May 5, 1985.

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Figure 1

Some Characteristics of Motivated and Unmotivated Behavior*

	Behavior Categories	Motivated Behavior Characteristics	Unmotivated Behavior Characteristics
1.	Direction	Movement towards situations, selects, engages in, enjoys reading experience.	Away from situation, rejects, avoids, dislikes reading experience.
2.	Perceptions	Positive to reading situation, to one's abilities, outcomes of reading.	Negative to reading situation, to one's ability, and to outcomes of reading.
3.	Volunteerism	Freely choses reading.	Forced, coerced to read.
4.	Activity Level	Steady, uninterrupted. Strong Concentration. Amount of work high. At peak: optimum (+)	Intermittent, sporadic. Inattentive. Amount of work low. At dip: aversive (-)
5.	Persistence/ Recurrence	Consistent attention, Intense effort, Repeated engagement, Free to return to reading.	Irregular attention, Minimal effort, Irregular/Infrequent engagement, Forced return to reading.
6.	Performance Change	Increases in reading proficiency, and flexibility. Movement towards development of power in reading.	Few changes observable in reading. Sometimes backward movement in reading proficiency.

*Adapted from: Maehr, M., "Meaning & Motivation: Toward a Theory of Personal Investment", In R. Ames & C. Ames (Editors), Research on Motivation in Education, Academe Press, N.Y., 1984, pp. 118-121.

unmotivated to read therefore he does not take books home to read), or to explain an outcome or an "effect" of some instructional tactic (i.e. Billy became motivated to practice oral reading of his own LEA dictated story, because he decided to share it with his sister's first grade class).

D. Reading/learning situations are dynamic processes involving interactions of motivational patterns with influences within teacher-designed instructional situations. As in all living systems motivational patterns are dependent upon, and are alterable by environmental interchange. Motivation is a present condition and an alterable behavior. Teachers and school instruction can make a difference!

E. This paper examines some insights into the nature of motivational processes involved in reading in school settings. To begin, Figure 1 presents a contrast between "motivated" and "unmotivated" behavior across six behavioral categories. This is the "visible" aspect of motivational behavior. Later, in section III, we speculate on the "invisible" aspects of the process.

F. All who work with pupils attempt to elicit the kinds of motivated behavior characteristics outlined here; we struggle to also identify how to alter the kinds of unmotivated behavior of pupils listed in Figure 1. To approach these issues this paper addresses the following questions:

(1) What influences account for the range of initial motivational patterns pupils bring to teacher-designed learning situations?

(2) Which aspects of teacher-designed learning situations influence pupils' initial motivational patterns?

(3) How do pupils process what they have experienced in teacher-designed learning situations?

(4) What are some useful concepts for an expanded role of teacher as a motivation altering agent in school reading/learning situations?

II. Contributions From Psychology

A. Interest in motivation has varied among educators as a function of time, place, and need, however the attention of psychologists dates back to at least the nineteenth century. Over the years, theorists and researchers have examined such variables as drives, instincts, reinforcers, needs, feelings, emotions, motives, fears, values, self-perceptions, inferences, cue utlilizations, expectations, attributions, etc...

B. Views as to the nature of variables and processes involved in motivation and behavior have differed sometimes sharply, among writers.

(1) One view considers human motivation to be essentially a function of species-specific drives and phylogenic instincts and needs.

(2) Another view treats motivation as learned behavior "shaped" by environmental reinforcers. To these theorists all behavior is the result

of complex S-R (Stimulus-Response) connections. Motivation is contingent upon the system of rewards the individual depends upon for gratification of personal needs.

(3) A third view perceives motivation as a function of thoughts, beliefs, perceptions, attributions and feelings associated with these. Theorists addressing motivation from this perspective examine people's "schema", the cognitions individuals hold regarding themselves, others, and the things they experience. Proponents study the manner in which individuals code and process information from situations experienced, the mental processes involved and the feeling states associated with how environmental cues are utilized.

C. Some theorists and researchers in the field associated with the more "mechanistic" and quantitatively oriented views tend to view unobservable and difficult to measure mental events and feeling states with skepticism if not contempt. Perhaps with this mind set, Gilbert Ryle (1949) referred to the mind stuff of interest to the "cognitive" theorists as ..."the ghost in the machine...", and later somewhat less poetically as "..the horse in the locomotive.." (Koestler, 1967).

D. Wiener (1972) and more recently Ames and Ames (1984) provide excellent material on the contributions of key theorists representing various schools of thought

in motivation. We are indebted to them and the writers below for their contributions to the field and for some of the concepts presented in this paper.

(1) Field Theory - Lewin (1935)

(2) Drive Theory - Hull (1943)

(3) Achievement Theory - McClelland (1951)

(4) Behavior Theory - Skinner (1953)

(5) Dissonance Theory - Brehm & Cohen (1962)

(6) Achievement Motivation Theory - Atkinson (1964)

(7) Attribution Theory - Kelley (1967)

(8) Personal Causation Theory - DeCharms (1968)

(9) Personal Investment Theory - Maehr (1974)

(10) Self-Efficacy Theory - Bandwin (1977)

(11) Opponent Process Theory-Solomen (1980)

III. A Hypothetical Motivational Sequence

A. Figure 2 presents a motivational sequence depicting one situational experience. In this figure the Initial Motivational Pattern (1) is a function of background and past experience.

Question 1 deals with the influences which account for the range of initial motivational patterns pupils bring to learning situations. These include the following:

(1) Maturity (age, grade, social development, etc.)

(2) Background (social class, ethnicity, values, attitudes, feelings, perceptions, etc..)

(3) Personal abilities (language, reading, intelligence, physiological factors, etc..)

(4) Needs, feelings (fear of failure, need for success, avoidance behaviors, hard-work threshold, etc..)

(5) Habits/Styles (of processing information, T.V. usage, reading habits & attitudes, etc..)

(6) Past experience with school learning situations (successes, failures, interests, curiosity, self-perceptions, attributions, etc..)

B. Pupils approach new Reading/Learning situations (2), depicted in Figure 2, with a set of perceptions, expectations, and feelings which interact throughout with factors that teachers design into learning situations.

Question 2 asks what aspects of teacher-designed learning situations can influence the initial motivational patterns of pupils. Some of these are outlined below.

(1) Materials Used (topics, format, readability, interest level of content, etc..)

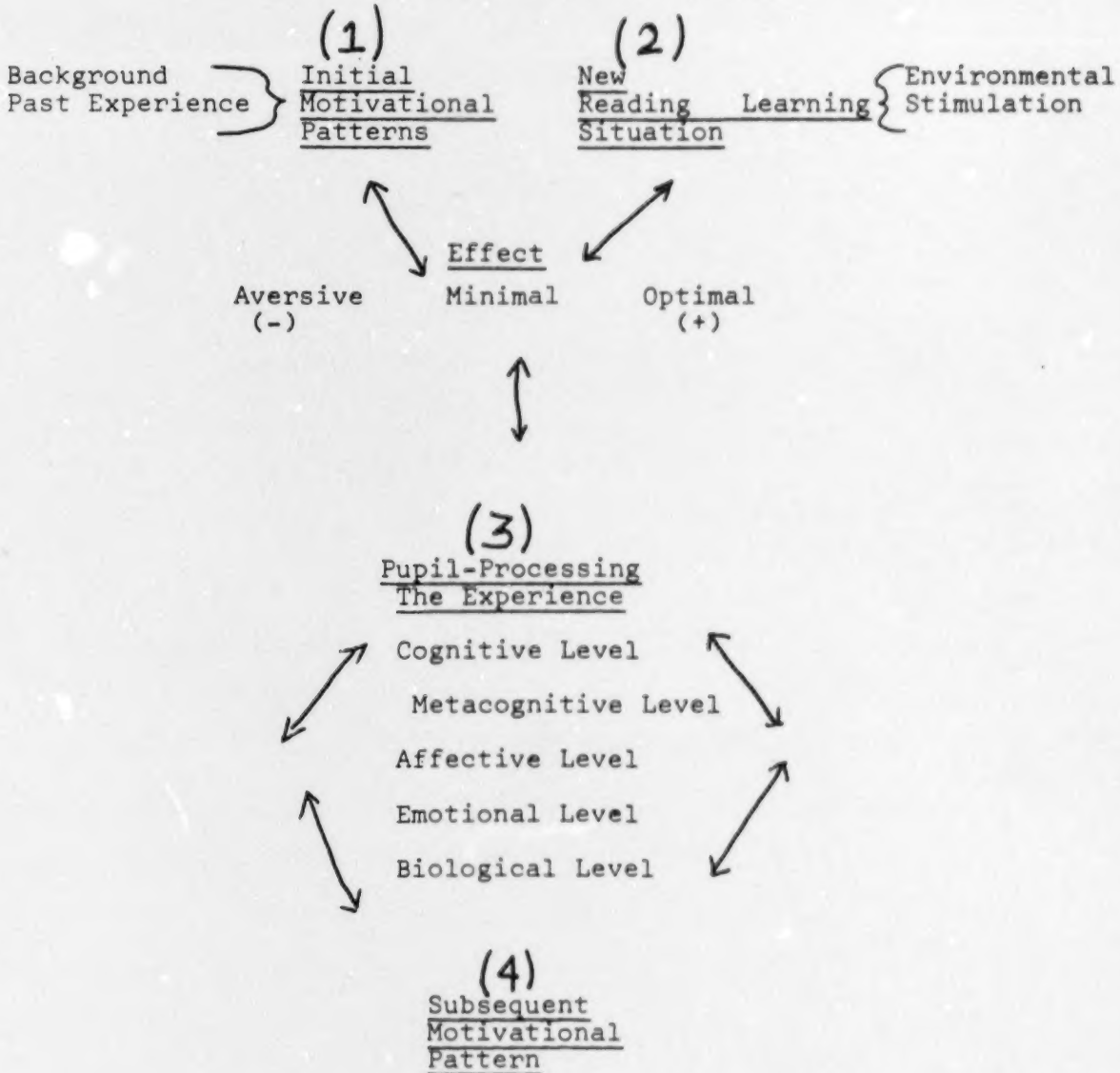
(2) Readiness Built (schema or concepts developed, associating topic with pupils' background, interests, etc..)

(3) Purposes Set (teacher-directed questions vs. pupil-directed exploratory reading for a project, interest level, coercive vs. voluntary work, outer-directed evaluative purposes vs. inner directed self-assessing, etc..)

(4) Processes activated (cooperative-group processes involving social-interaction & collaborative learning / reading vs. competitive, independent, experiential-learning vs. abstract, irrelevant information retention, integrated reading, writing, listening, speaking, thinking activities,

Figure 2

A Model of A Motivational Sequence



vs. reading as the only mode of action, activities involving self-selection of materials, freedom of choice & options for tasks & who to work with, vs. Outer-directed teacher determined tasks, tasks involving higher-level thinking vs. literal comprehension, etc..)

(5) Information Conveyed (the quality and amount of structure provided - pupils know what the product of their work will be, how to accomplish tasks, how to self-direct, self-evaluate their own work, when to know work is successfully completed, what the potential errors & pitfalls might be, if the work will be graded, if so how, by whom, is the work a challenge, or a threat? a potential for embarrassment? or ridicule? etc..)

(6) Outcomes Experienced (the quality & sensitivity of feedback or knowledge of results, the nature of rewards & incentives experienced, reinforcers of behavior teacher wishes to see continued, etc..)

C. Question 3 examines the manner by which students Process the Experience (3) as modelled in Figure 2. This is a process which is initiated as the reading/learning situation develops and continues through as well as after the experience has been completed. In regard to what we think pupils do, or what happens, we hypothesize that these "unobservable" thinking-feeling processes involve the activation of diminsionally distributed but linked hierarchical subparts organized from higher level voluntary, logical, and conscious processes (cognitive, metacognitive,

and affective) to lower level automatic illogical, and subconscious processes (emotional, and biological).

(1) Each pupil has a preformulated motivational "systems-principle" which underlies how the pupil processes exchanges with his environment.

(2) While all pupils more or less process at all levels of the system to maintain equilibrium, qualitative differences in processing of experience occurs.

(3) Some pupils engage in mostly "bottom-up" motivational processing of experience where illogical and emotional/biological needs, fears, avoidance sub-systems are activated which color cognitions and are superordinate to voluntary thought processes and objective and logical treatment of school experience. Some say "Id" and or "child" is in command.

(4) Other pupils, more likely the more successful academically, eventually achieve what systems theorists refer to as "a steady state", a level of maximum potential where the processing of experience is always oriented to the same end, where the learning experience is always accomplished with less effort, greater success, and under more variability. The systems principle is to understand, & gain control over situations. To the extent that conscious, logical and voluntary processes prevail, the processing is "top-down" with cognition, metacognition, and affect direcing and controlling (regulating) emotions and

drives. In top-down processing, the "ghost" is running the machine, "ego" or "adult" is in command.

(5) Any processing direction, can only achieve it's specific systems principle by allowing particular subsystems the measures of autonomy and selective superordinance required by the system principle. Autonomy can be transferred to higher or lower levels of the motivational system, and the higher level processes can become superordinate. The motivational processing sequence for some is alterable, certain school factors could make the difference. How much is another matter.

IV. Unlocking the Ghost in The Machine

A. Illogical bottom-up instinctual responses need not be the sole determiner of all future behavior. Teachers could "educate" pupils into unlocking the "ghost" in the machine, (insight, intellectual awareness, task knowledge, and self-evaluative abilities). Some teachers can and do guide pupils into more top-down processing of academic experience.

B. The mature "Top-Down" processor eventually learns that external approval, tokens of success, and outer-directed rewards are neither always possible nor always necessary. Satisfaction from the outcomes of school work can derive from attaining personal goals and growth. Personal control over the tasks and outcomes of school work becomes the reward of the mature and successful student. "Adult" can be in command.

C. Question 4 asks for potentially useful concepts to expand the teacher's role as a motivation-altering agent. This section provides some of these concepts. First, six motivational concepts are presented. Second, some instructional concepts are presented reference to variables important to reading/learning situations.

(1) Some Motivational Concepts

(a) The Concept of Personal Causation

When the pupil causes an action, feels and perceives himself as having originated it, this is an "origin" experience. Such an outcome is both rewarding and reinforcing. The "origin" experience provides a sense of initiating one's own actions. A "pawn" experience conveys the feeling of being externally directed. Origins feel in control, pawns feel helpless and are not often optimally motivated.

Motivational Potential: School tasks and situations should provide degrees of freedom through well-thought out choices and alternatives for pupils to select from. Various elements designed into a situation (from the selection of what to read, when & where to read, to the purposes & outcomes) can be separately or collectively, subject to pupil self-direction.

(b) The Concept of Attribution

Based upon how they process experience, pupils assign a variety of meanings to outcomes resulting from school situations (Rotter 1966). To explain how and why certain outcomes occur, they ascribe responsibility to internal factors (ability, effort, mood, attitude, knowledge, etc.) or to external factors (fate, luck, chance, powerful others, etc.).

Motivational Potential: Underachieving students who are "externals," assign responsibility for events to both stable and unstable outer forces. They could profit from help to become more "internal". Such growth could be facilitated partly through experiences in self-direction, and self-evaluation of school tasks and situations. It is more motivational to feel that one is in control of events and to attribute outcomes to the result of one's own attitudes, efforts, and actions.

(c) The Concept of Personal Responsibility

Being able to successfully utilize choices and options enhances perceptions of self as origin and the development of an internal locus of control. Attaining such attributions and expectations requires that pupils

also learn to accept ownership for their freely chosen decisions and self-directed actions. This is a characteristic of responsible behavior which must also be developed.

Motivational Potential: Being held (and eventually holding oneself) responsible for one's actions encourages more logical decision-making, more considered judgments and more rational thinking. Personal growth and the enhancement of self-esteem from such experiences is motivational. Pupils need tasks and guidance which provide experience in self-directed goal-setting, self-monitoring and self-evaluation of their actions and products.

(d) The Concept of Expectancy

Subjective estimates of one's chances for success or failure in school situations influence effort and affect motivation. Fear of failure associated with various school tasks is frequent. For good students this tends to be motivating. For under-achievers, fear of failure and negative self-perceptions create a sense of hopeless-ness, and unmotivated behavior.

Motivational Potential: Underachieving pupils with such extectancies require sophisticated assistance leading to meta-cognitive growth. This involves helping such pupils grow in self-understanding, task-knowledge, & self-evaluative abilities. Rosen (1982) describes techniques for developing stress relief, insight, and task-knowledge for the types of poor readers who have histories of negative expectancies. Helping such pupils "catch on" to school tasks and "catch hold" (of their sense of "self") could improve motivation by reducing anxiety, feelings of helplessness, and the expectancy for continued failure.

(e) The Concept of Competency Motivation

Engaging in situations which permit for the full use of one's abilities and reading within one's interests is motivational. In such situations pupils readily undertake school work. Such experience is particularly important for underachievers who need to develop the habit of outputting optimum effort more often.

Motivational Potential: Recognize and utilize the strengths, interests and special needs of pupils by designing tasks and activities which draw upon these fully. Underachieving pupils should read

at levels they could succeed at, and in materials that they have interests in. Success results in improved motivation to read which creates the potential for more success. Talents such as drawing, music, athletics, mechanical abilities, etc...should be known to the teacher and capitalized on.

(f) The Concept of Metacognitive Awareness

Pupils need to grow in abilities needed to deal independently and competently with school situations and tasks. This involves deepening pupils' understanding of and mastery over the required processes of school activities.

Motivational Potential: Many students who feel uncertain of how to succeed in school tasks perceive themselves as pawns and ascribe responsibility for the outcomes that they experience to factors that they feel little control over. These students could particularly benefit from metacognitive awareness training. Growth in understanding the varying nature and requirements of school tasks and growth in the self-evaluation of one's efforts and products is motivational. Students need teachers who are able to design such assistance into learning tasks.

(2) Some Instructional Variables

(a) Task Design/Content

Teachers need to design attractive, novel, and rewarding learning situations to engage pupils in. Dull routine tasks such as too frequent rote drill on isolated skills can create monotonous environments. Unusual learning situations increase attention, interest, and effort. Live, "hands-on" functional experiences utilizing tasks which require role-playing and problem-solving, induce social-interaction, thought processes and cooperative, collaborative learning. Such experiences enhance motivation.

(b) Information Teachers Convey To Class

Teachers need to provide the types of structure which are appropriate to pupil maturity, and needs for self-direction. We need to provide rationales for tasks, and help pupils steadily learn to set standards which will stimulate positive expectations. Originship and responsibility can be developed through small group instruction and independent activities. We need to provide the kinds of instructions for tasks which fosters self-direction, as well as opportunities for cooperation, and interdependence.

(c) Socio-Cultural Context

Constraints to self-directed effort come from personal dependency habits, social values, and peer-group influences. Creating role shifts by assigning pupils a variety of leadership tasks, changes self-perceptions, and increases activity levels. Invitations to assume new roles with new responsibilities are also motivational. We need to encourage pupils to become "experts" on subjects and make presentations to audiences, chair small problem-solving groups, read orally to entertain, and tutor younger pupils, etc.

(d) Social Expectations

Competitive structures tend to result in fixations on social comparisons of outcomes and achievement. Vague or unequal criteria for success create perceptions of an unstable, uncontrollable environment. When poor performance is a frequent outcome, feelings of helplessness, resignation and unmotivated behavior result. Bouton and Garth (1983), Byrne and Wolfe (1980), Keeton and Tate (1978) and Rodgers (1969) provide insights for instituting balance between individual and cooperative experiences. We need to have pupils express these types

of feelings and provide them with feedback and guidance for dealing with the perceptions they bring to learning tasks. To enhance perceptions and encourage individual effort and competition with one's own previous performance, we need to encourage pupils to design and focus on their own goals, to engage in task-analyses, and to self-evaluate the results of their own actions. Collaborative learning tasks offer an alternative to competitive independent work. Such cooperative endeavors provide rich experience for everyday life and the world of work.

(e) Outcomes/Responses

Rewards have a powerful effect on one's perceptions of the outcome of one's efforts and actions. Feedback on the results of one's products has a significant influence on how pupils process what has happened in school experience.

Positive self-esteem occurs when successful outcomes are attributed to one's own self-directed actions. Negative self-esteem can develop when frequent failures is attributed to stable aspects of one's self or one's environment. Recognition, praise, and rewards resulting from external evaluation while not a problem at the start

of any new learning, for some pupils can result in an altered perception of originship. This could be unfortunate for pupils who can already successfully engage in self-evaluative activity.

We need to cautiously begin external evaluation at levels where success is attainable but we should minimize this form of feedback for self-directed pupils. We need to provide these pupils with a range of performance items to select from and freedom to self-evaluate. We need to assist the others by helping them learn in small steps to self-evaluate. All pupils need to learn how to set goals, monitor their work and succeed by their own efforts. The problem is knowing how to do this, for whom, when, & where.

V. Concluding Comments

There are without doubt, new concepts on motivation which are applicable to school settings but it is difficult and complex to transfer these in a systematic manner, into classroom practice. There also are good reasons for not expecting much more from some teachers than improved basic instruction. Pupils, however, process experience at whatever levels they happen to be at and some have particular needs to be helped to process at higher levels. Since it appears at the least, to be logical that successful learning comes from proactive behavior (such as conscious

and voluntary thinking, willing, and rationally acting on learning situations) rather than pure emotional reacting, there are teachers who probably could help pupils by acquiring new concepts and skills which could have a positive effect on pupil motivation.

One of the characters in The Call Girls (Koestler, 1973) comments in a dialogue with a colleague on the behavior of humans, that "...behind each yodel there is a heil..." Are current instructional approaches shaping instinctive automatic, or voluntary and rational cognitive responses? Are we missing the forest for the trees? Does it matter? Do we need to identify, and alter reading/learning situations which create negative outcomes and unmotivated behavior? Is there a need to develop more sophisticated curriculum that incorporates insights and skills which can influence motivational behavior? Do pupils of the electronic era require such adjustments or is there a future condition for education in the electronic age, which is predetermined by uncontrollable events? Perhaps only time will tell.

BIBLIOGRAPHY

Ames, R. & Ames, C. (Eds.). Research in motivation. N.Y.: Academic Press, 1984.

Atkinson, J. An introduction to motivation. Princeton: Van Nostrand, 1964.

Bandura, A. Self-efficacy: toward a unifying theory of behavioral change. Psychological Review, 1977, 84, 191-215.

Bouton, C. & Garth, R. (Eds.). Learning in groups. San Francisco: Jossey-Bass, 1983.

Brehm, J. & Cohen, A. Explorations in cognitive dissonance. N.Y.: Wiley, 1962.

Byrne, E. & Wolfe (Eds.). Developing experiential learning programs for professional education. San Francisco: Jossey-Bass, 1980.

DeCharms, R. Personal causation. N.Y.: Academic Press, 1968.

DeCharms, R. Motivation enhancement in educational setting. In R. Ames & C. Ames (Eds.), Research on motivation in education. N.Y.: Academic Press, 1984, 275-312.

Hull, C. Principles of behavior. N.Y.: Appleton-Century-Crofts, 1943.

Keeton, M. & Tate, P. (Eds.). Learning by experience: what, why, and how. San Francisco: Jossey-Bass, 1978.

Kelley, H. Attribution theory in social psychology. In De. Levine (Ed.), Nebraska Symposium On Motivation (Vol. 15). Lincoln: University of Nebraska Press, 1967, 192-237.

Koestler, A. The ghost in the machine. N.Y.: The Macmillan Co., 1967.

Koestler, A. The call girls. N.Y.: Random House, 1973.

Lewin, K. A dynamic theory of personality. N.Y.: McGraw-Hill, 1935.

Maehr, M. Sociocultural origins of achievement. Monterey: Brooks/Cole, 1974.

McClelland, D. Personality. N.Y.: Rinehart & Winston, 1951.

McLuhan, M. Understanding media. N.Y.: McGraw-Hill, 1964.

Rodgers, C. Freedom to learn. Columbus: Charles E. Merrill, 1969.

Rosen, C. Psychotherapeutic techniques applicable to remedial treatment of reading disabilities. Resources In Education. Urbana: ERIC Clearinghouse on Reading and Communication Skills, April, 1982.

Rotter, J. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 1966, 80, No. 609.

Ryle, G. The concept of mind. London: 1949.

Skinner, B. Science and human behavior. N.Y.: MacMillan, 1953.

Solomon, R. The opponent-process theory of acquired motivation: the costs of pleasure and the benefits of pain. American Psychologist, 1980, 35, 691-712.

Toffler, A. The third wave. N.Y.: William Morrow, 1981.

Weiner, B. Theories of motivation: from mechanism to cognition. Chicago: Markham, 1972.